REMARKS

In the Office Action, claims 40 and 41 were allowed, and claims 1-39 were rejected. Applicants thank the Examiner for allowing claims 40 and 41. Claims 1-41 remain pending in the present application.

In the Office Action, claims 27-37 and 39 were rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed.

According to the Office Action, "It is unclear how the pressure can be used from a blow-out to sealing the control, because once a blow-out occurs there is nothing left." If this rejection is maintained, Applicants respectfully request clarification of this statement. However, Applicants ask that this rejection be withdrawn, because the language of claims 27-37 and 39 is fully enabled in the specification. The specification describes the potential for and problems associated with blow-outs in a well. The specification further describes the use of pressure resulting from a blow-out in sealing off potential flow paths of pressurized well fluid. As described on page 1, paragraph 3, of the specification:

> "Since hydraulic control lines extend from downhole to the surface, they provide a flow path independent of the production tubing or wellbore. If a blow-out occurs in the wellbore, sealing the blow-out within the wellbore and production tubing may still allow the blow-out to pass through the control line, since the control line is an independent flow path. Therefore, to truly control blow-outs in wellbores with hydraulic control lines, a mechanism must be in place to seal off the control line as well as the wellbore/production tubing in case of a blow-out."

The specification further describes mechanisms and techniques for utilizing the pressure from the blow-out to automatically seal a control line using the pressure of the blow-out. For example, the specification recites:

> "If there is a blow-out downhole or if there is a pressure spike from the downhole location and such blow-out or pressure spike is transmitted through the control line 20, then such increased pressure overcomes the counter-force provided by the spring 50b and moves the shuttle valve 30 to the first position

wherein a metal-to-metal seal is created between the end portion surface 45a and the housing surface 48a." (See page 4, paragraph 2).

The specification further describes use of the blow-out pressure in another embodiment by stating that:

"Figure 2C shows the case when there is a blow-out or pressure spike from the downhole location and such blow-out or pressure spike is transmitted through the control line 20. If this occurs, such increased pressure within fluid F2 moves shuttle 40 in the uphole direction and past the second position until the shuttle end 68b abuts the uphole surface 72 of cavity 60. Thus, shuttle valve 30 seals a blow-out or pressure spike from the downhole direction." (See page 6, paragraph 2).

These are just a few examples of how the specification fully describes and enables use of the pressure resulting from a blow-out to automatically seal a control line, as recited in claims 27-37 and 39. Accordingly, the rejection of these claims should be withdrawn.

Claims 1, 3-10, 14-17 and 38 were rejected under 35 USC 102(e) as anticipated by the French reference, US Patent Application No.: 6,595,296. Applicants respectfully traverse this rejection.

The French reference describes a hydraulic control assembly that can be used to control downhole tools. However, the reference does not describe or suggest a valve that is able to transfer pressure through a control line in an uphole and a downhole direction while having the capability of sealing the control line upon receiving a pressure spike from the downhole direction, as in the subject claims.

The hydraulic control assembly 10 described in the French reference utilizes a shuttle valve 24, but the shuttle valve 24 does not enable the transfer of pressure in an uphole and a downhole direction while also being able to seal off the control line upon receiving a pressure spike from the downhole direction. The shuttle valve 24 is described as being movable between three operative positions. In the position illustrated in Figure 1A, the tool is in a deactivated configuration, and the hydraulic assembly 10 is configured such that the tool control fluid outlet 16 is isolated from control fluid by shuttle valve 24. (See column 6, lines 22-26). The shuttle valve 24 includes a locking mechanism, such as a latch assembly, that maintains the shuttle valve

in this configuration. The locking mechanism is deactivated by the leading end of a gear rod 34 when it approaches and engages the shuttle valve 24. (See column 7, lines 12-19). Accordingly, the reference teaches away from movement of the shuttle valve under the influence of a pressure spike from the downhole direction.

In Figure 2, the hydraulic control assembly 10 has been moved to an open configuration so that the tool is in an activated configuration. The hydraulic control assembly 10 and the tool are moved to this configuration by initially moving gear rod 34 axially towards and into contact with the shuttle valve 24. Further axial movement of gear rod 34 moves shuttle valve 24 until shuttle valve shoulder 28 moves past inlet port 18. This allows fluid communication between port 22 and inlet port 18 so that tool control fluid can flow to the tool to activate the tool. (See column 7, lines 4-12). As illustrated in Figure 2, the spool valve 24 is held in this open flow position by rod 34. There is no mechanism by which the shuttle valve is moved to seal the control line upon occurrence of a pressure spike from the downhole direction.

The hydraulic control assembly 10 also can be moved to a closed configuration, as illustrated in Figure 3. However, this is accomplished not by a pressure spike but by moving gear rod 34 further in an axial direction. The additional axial movement of the shuttle valve beyond the position shown in Figure 2 causes shuttle valve shoulder 30 to seal the inlet port 18 and maintain fluid pressure in the control conduit coupled to the tool. Once the hydraulic control assembly 10 reaches the position illustrated in Figure 3, the assembly 10 is "spent" and must be removed and reset for subsequent use. (See column 7, line 57, through column 8, line 4).

In the Office Action, it was stated that the "Applicant merely alleges that French does not teach the limitations and has not shown why the valve in the French reference would not be capable of responding to a pressure spike and automatically sealing the control line." (See Office Action, pages 8-9, paragraph 10). Applicants respectfully submit the above explanation of the French reference with specific cites to its disclosure should demonstrate that this reference fails to disclose or suggest numerous elements of the subject claims. Accordingly, the rejection of claims 1, 3-10, 14-17 and 38 should be withdrawn.

By way of specific examples, the French reference fails to disclose or suggest a shuttle valve that enables pressure transfer through a control line from both a downhole and an uphole direction, wherein the shuttle valve is "adapted to seal the control line when a pressure spike occurs from the downhole direction" as recited in independent claim 1. Similarly, the reference fails to disclose or suggest a valve able to transfer pressure through a control line from both a downhole and an uphole direction during normal operating conditions while being adapted "to automatically seal the control line when a pressure spike occurs from the downhole direction" as recited in independent claim 38. Accordingly, the rejection of these independent claims as well as dependent claims 3-10 and 14-17 should be withdrawn.

Claims 2 and 20-26 were rejected under 35 USC 103(a) as being unpatentable over the French reference. Applicants respectfully traverse this rejection.

In the Office Action, it was stated "French discloses that there are seals for sealing the flow control means and isolating the ports. Furthermore, blowouts can occur in all wellbores. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention that the pressure spike would comprise a blow-out." (See Office Action, page 6, paragraph 6). The French reference provides no disclosure or teaching related to blow-outs. Additionally, and as described in the preceding paragraphs, the French shuttle valve is not adapted to automatically seal the control line in case of a blow-out. Accordingly, the rejection of claims 2 and 20-26 should be withdrawn.

With specific reference to the claims, the French reference provides no disclosure that would suggest a valve that is able to "automatically seal the control line in case of a blow-out" wherein the valve is able to transfer pressure through the control line from both a downhole and an uphole direction during normal operating conditions, as recited in independent claim 20. Claims 21-26 ultimately depend from independent claim 20, and claim 2 depends from independent claim 1. Therefore, the rejection of these claims should be withdrawn.

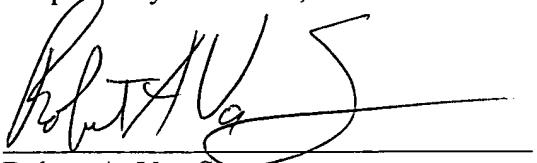
Claims 11-13 were rejected under 35 USC 103(a) as being unpatentable over the French reference in view of the Schultz et al. reference, US Patent No.: 6,536,530. Applicants

respectfully traverse this rejection. However claims 11-13 ultimately depend from independent claim 1. Accordingly, these dependent claims are patentable over the cited references for the reasons provided above with respect to independent claim 1 as well as for unique subject matter recited in each of these dependent claims. The Schultz et al. reference provides no additional teaching that would obviate the deficiencies of the French reference.

Claims 18 and 19 were rejected under 35 USC 103(a) as being unpatentable over the French reference in view of the Schwendemann reference, US Patent No.: 6,450,263. Applicants respectfully traverse this rejection. However claims 18 and 19 ultimately depend from independent claim 1. Accordingly, these dependent claims are patentable over the cited references for the reasons provided above with respect to independent claim 1 as well as for unique subject matter recited in each of these dependent claims. The Schwendemann reference provides no additional teaching that would obviate the deficiencies of the French reference.

In view of the foregoing remarks, all pending claims are believed to be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,



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